

REMARKS

In the Office Action that was mailed on November 14, 2003, the specification and title were objected to; claims 6 and 11 were objected to; claims 7-9 and 16 were rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement; claims 7, 12, and 16 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness; claims 1-5, 14, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naruse et al. (U.S. Patent No. 6,526,480) ("Naruse"); claims 10-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Naruse in view of Gornish et al. (U.S. Patent No. 5,752,037) ("Gornish"); and claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Naruse in view of Steely, Jr. et al. (U.S. Patent No. 5,966,737) ("Steely"). The foregoing objections and rejections are respectfully traversed.

Claims 1-16 are pending in the subject application, of which claims 1, 4, 7, and 14-16 are independent claims.

Information Disclosure Statement:

The examiner has not yet acknowledged the form PTO-1449, which was submitted with an Information Disclosure Statement filed on March 1, 2001. The Applicants respectfully request that the examiner sign, acknowledge, and return the same to the undersigned.

Amendments to the Specification:

The Title of the invention is amended herein. A Substitute Specification is submitted herewith. The Specification is amended herein, taking the examiner's comments into consideration and directed to overcoming the objections thereto. The Applicant respectfully requests that the examiner withdraw the objections thereto.

Amendments to the Claims:

Claim 5 is amended to depend from claim 1 instead of claim 3. Claim 10 is amended herein to depend from claim 4 instead of claim 1. Claims 7 and 16 are amended herein to change the term "the other cache device" to "the other cache devices," to cure a typographical error. Claim 7 is further amended herein to add several commas. In addition, claim 12 is

amended herein to clarify the interconnection relationship and to delete "the" from the first instance of the term "preservation states." Claims 14-16 are amended herein to remove "step-plus-function"-type language. Care has been exercised to avoid the introduction of new matter.

Objections to the Claims:

In item 4, on page 2 of the Office Action, the examiner objected to claim 6 as being in improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, claim 6 depends from claim 5, which depends from claim 3, which depends from claim 1. Claim 5 is amended herein to depend from claim 1 instead of claim 3. Therefore, claim 6 no longer recites the same features as claim 3.

In item 5, on page 2 of the Office Action, the examiner objected to claim 11 because it is a substantial duplicate of claim 10. The Applicants note that claims 10 and 11 were amended in a Preliminary Amendment that was filed on March 1, 2001 to eliminate any multiple dependencies and to make each claim depend from claim 1. Therefore, claim 10 is amended herein to depend from claim 4 instead of claim 1. Therefore, claim 10 no longer recites the same features as claim 11.

The Applicants respectfully request that the examiner withdraw the claim objections.

Rejections of the Claims:

Claim Rejections Under § 112, first paragraph:

In item 6, on page 3 of the Office Action, the examiner stated that he does not understand why the pre-fetch data is invalidated when none of the other cache devices store the corresponding data and why the pre-fetch data is stored as-is when the other cache devices store the corresponding data, as recited in claims 7 and 16. The Applicants respectfully assert that page 8, line 16 through page 9, line 6 and page 39, line 22 through page 40, line 9 of the Specification adequately explain the reason for invalidating the pre-fetch data or storing the pre-fetch data as-is. The Applicants respectfully request that the examiner withdraw the rejections under § 112, first paragraph.

Claim Rejections Under § 112, second paragraph:

In item 7, on pages 3-4 of the Office Action, the examiner stated that: (1) the term "the other cache device" in claims 7 and 16 was without proper antecedent basis, (2) the terms "said interconnecting network," "the preservation states," and "the state controlling lines" in claim 12 were without proper antecedent basis, (3) lines 6-16 of claim 12 were unclear, and (4) claims 7 and 16 require several commas.

Claims 7 and 16 are amended herein to change the term "the other cache device" to "the other cache devices," to cure a typographical error. Claim 7 is further amended herein to add the commas that the examiner recommended, but the Applicants do not think that claim 16 requires any additional commas; therefore, claim 16 is not amended to add any commas. In addition, claim 12 is amended herein to clarify the interconnection relationship and to delete "the" from the first instance of the term "preservation states." The term "the state controlling lines" has proper antecedent basis because the term "state controlling lines" is properly introduced for the first time immediately preceding the term "the state controlling lines."

The Applicants respectfully request that the examiner withdraw the rejections under § 112, second paragraph.

Claim Rejections Under 35 U.S.C. § 103(a):

The present invention and Naruse were, at the time that the present invention was made, owned by, or subject to an obligation of assignment to, the Applicants, Fujitsu Limited. Naruse should be disqualified under 35 U.S.C. § 103(c) because Naruse is assigned to Fujitsu Limited (the same assignee as the subject application) and is being used as a § 103(a) reference only through the application of § 102(e). For the examiner's convenience, the Applicants are attaching hereto a photocopy of the recorded assignments from both the subject application and Naruse.

Therefore, the Applicants respectfully request that the examiner withdraw Naruse as a reference. Without Naruse, the rejections under § 103(a) are insufficient to render the claimed invention unpatentable. In addition, because the examiner has stated that Naruse does not teach various elements of the claimed invention, Naruse is not a proper § 102 reference in the alternative.

Unsupported Findings of Well Known In The Art and Inherency:

"It is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based." MPEP § 2144.03 (citing In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001)). Therefore, the Applicants respectfully traverse the Examiner's various well-known-in-the-art assertions, e.g., that a cache memory pre-fetches data when a cache miss occurs (Office Action, p. 5), and request that the Examiner cite a reference in support of each and every well-known-in-the-art assertion, present an affidavit supporting the same, or withdraw his reliance upon the same, as required by MPEP § 2144.03 and 37 C.F.R. § 1.104(d)(2).

The inherent teachings of a prior art reference are questions of fact. In re Napier, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). With respect to core factual findings in a determination of patentability, the Examiner cannot simply reach conclusions based on his own understanding or experience, or on an assessment of what would be basic knowledge or common sense. In re Zurko, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Rather, the Examiner must point to some concrete evidence in the reference in support of his findings. Id. Therefore, the Applicants respectfully traverse the examiner's implication that various things are inherent because they "most likely" or "always" occur, and request that the examiner point to some concrete evidence in the references in support of his findings.

Lack of Motivation To Combine The § 103(a) References:

MPEP § 706.02(j) requires that, to establish a *prima facie* case of obviousness under § 103, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. ... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure."

MPEP § 2142 states that "[w]hen the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper." The examiner is required to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50

USPQ2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." Dembiczak, 50 USPQ2d at 1617. "The factual inquiry whether to combine the references must be thorough and searching." In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 60 USPQ2d 1001, 1008 (Fed. Cir. 2001)). The factual inquiry must be based on objective evidence of record, and cannot be based on subjective belief and unknown authority. Id. at 1433-34. The examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

The examiner has not presented any evidence why Naruse and Gornish or Naruse and Steely would have been combined. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP § 2143.01. Specifically, there must be a suggestion or motivation in the references to make the combination or modification. Id. The examiner's sole support for such a combination is that the combination would "reduce the number of cache misses because most of the times the next read request sent by the processor is the address adjacent to [sic] currently read memory address" and that "[b]y using the distinguishing bit, sending data requested by the read request to the processor as a response of the pre-fetch request and vice versa can be avoided." (Office Action, p. 12-13) (errors in original). The examiner cannot rely on the benefit of the combination without first supporting the motivation to make the combination. Such motivation does not appear anywhere in any of the references, and the examiner has not presented any actual evidence in support of the same. Instead, the examiner relies on broad conclusory statements, subjective belief, and unknown authority. Such a basis does not adequately support the combination of references; therefore, the combination is improper and must be withdrawn.

Withdrawal of the foregoing objections and rejections is respectfully requested.

There being no further objections or rejections, it is submitted that the application is in condition for allowance, which action is courteously requested. Finally, if there are any formal matters remaining after this response, the examiner is requested to telephone the undersigned

to attend to these matters. If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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